

cell and a decrease in the proportion of VLCFA produced by said plant cell.

15. The method of Claim 14 wherein said regulatory elements direct the antisense transcription of said DNA sequence.

16. The method of Claim 14 wherein said regulatory elements direct preferential expression of said DNA sequence in plant seed embryo cells and wherein said VLCFA and said β -keto acyl-CoA is produced in plant seed.

17. A plant seed cell produced in accordance with Claim 9.

15 18. A construct comprising a DNA sequence which encodes a condensing enzyme and a heterologous DNA sequence not naturally associated with said encoding sequence wherein said condensing enzyme encoding sequence is obtained by screening a DNA library prepared from an organism which is capable of producing very long chain fatty acid molecules with degenerate oligonucleotide primers selected from the group consisting of
 CAUCAUCAUCAUGAATTCAAGCTTAARYTNBKNTAYCAYTA, *Seq 33*
 25 CAUCAUCAUCAUGAATTCAAGCTTAAYYTNGGNATGGG, *Seq 35*
 CUACUACUACUAGGATCCGTCGACCCATNCCNCCNARRTT, *Seq 36*
 CUACUACUACUAGGATCCGTCGACSWRTTRCAYTTRAANCC and *Seq 38*
 CUACUACUACUASWRTTRCAYTTRAANCC. *Seq 39*

30 19. An isolated nucleic acid sequence encoding a condensing enzyme which can be isolated according to a method comprising the step of PCR amplification utilizing primers CAUCAUCAUCAUGAATTCAAGCTTAARYTNBKNTAYCAYTA and CUACUACUACUAGGATCCGTCGACCCATNCCNCCNARRTT.

35 20. A construct comprising a nucleic sequence according to Claim 19 and a heterologous DNA sequence not naturally associated with said encoding sequence.